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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,742	02/19/2002	David Neil Slatter	30004064-2	4921

22879 7590 08/18/2008

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EXAMINER	
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ART UNIT	PAPER NUMBER
2622	

NOTIFICATION DATE	DELIVERY MODE
08/18/2008	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID NEIL SLATTER, RICHARD OLIVER KAHN, and ANDREW ARTHUR HUNTER

Appeal 2008-1545
Application 10/078,742
Technology Center 2600

Decided: August 14, 2008

Before JOHN C. MARTIN, LEE E. BARRETT, and MAHSHID D. SAADAT, *Administrative Patent Judges.*

MARTIN, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-8, 10-14, and 18-23 under 35 U.S.C. § 103(a). No claims stand allowed.

We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

A. Appellants' invention

Appellants' invention is a wearable electromagnetic radiation receiving/transmitting device (Specification 1:3-4) and more particularly is such a device that conceals a camera (*id.* at 1:6-21).

Appellants' Figure 1 is reproduced below.

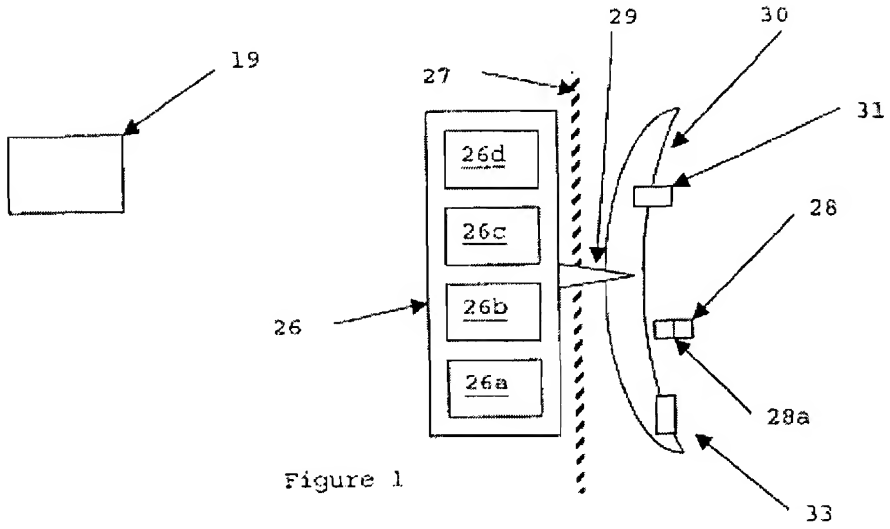


Figure 1

Figure 1 is described as a schematic cross-sectional side view of a miniature camera disguised in a piece of jewelry having an electronic portion of the camera secured behind a wearer' s clothing (*id.* at 4:12-15).

Reference numeral 27 designates a user's clothing, with the region to the right of numeral 27 representing the front (i.e., outside) of the user's clothing (*id.* at 4:24-32).

The receiving/transmitting device can take the form of a camera[1] disguised to resemble an item of jewelry 30 or a badge or can be integrated with a common fashion accessory such as a tie clip (*id.* at 4:21-23). The front portion of the device, i.e., jewelry 30, includes a lens section 28 (*id.* at 4:23-24), which includes a CMOS sensor 28a (*id.* at 6:13-15). The jewelry can also include a photovoltaic cell 33 to provide power for the camera (*id.* at 5:23-25).

The rear portion of the device, located behind (i.e., inside of) the user's clothing 27, is an electronics module 26 (*id.* at 4:24-26). A pin 29 extending from electronics module 26 penetrates the user's clothing in order to fix jewelry 30 in place and also to electrically mate the electronics module to the jewelry (*id.* at 4:27-29).

The electronics module includes a semiconductor memory 26a for electronic storage of images captured by camera lens section 28, a power supply 26b for the camera, and control circuitry 26c for the camera (*id.* at 5:27-30) and also includes gain control circuitry for CMOS sensor 28a (*id.* at 6:26-28). The electronics module may also contain a Bluetooth® high-frequency broadcast standard transmission module, with the jewelry 30 including an antenna 31 operable to transmit signals over a short distance, e.g., from the camera to a receiver module 19 located elsewhere on the user's body or contained in a bag carried by the user (*id.* at 5:1-7).

---

[1] Reference numeral 10, which designates the camera in the
(Continued on next page.)

The transmitter can take the form of an infrared (IR) transmitter, a radio transmitter, a visible light transmitter, or an ultrasound transmitter (*id.* at 2:8-10). The Specification further explains that "[i]f transmitting radio frequencies, the antenna could be internal, e.g. in the electronics module 26" (*id.* at 8:1-2).

Appellants' Figure 2 is reproduced below.

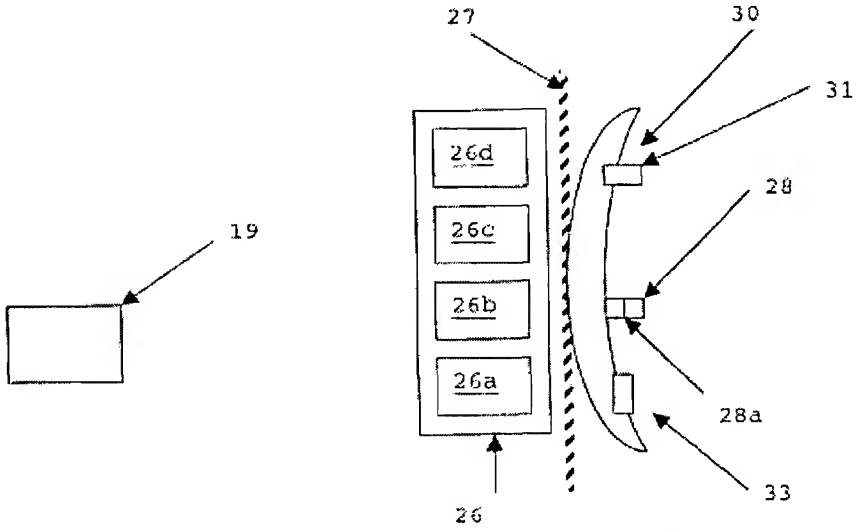


Figure 2

Figure 2 is a schematic cross-sectional side view of a camera disguised as jewelry that is inductively coupled to a rear control portion (*id.* at 4:17-19).

In the Figure 2 embodiment, the front and rear portions may be held in proximity to one another magnetically (*id.* at 3:9-12) rather than by a pin.

Specification, does not appear in the drawings.

B. The claims

The independent claims are claims 1, 18, and 19, of which claim 1 reads:

> 1. A wearable electromagnetic (EM) radiation transmitter/receiver comprising:
>
> a front portion;
>
> a rear portion, wherein the front portion includes a transmission and reception sections and is adapted to be worn outside a wearer's clothing, and wherein the rear portion includes a control section and is worn inside at least part of the wearer's clothing, the front and rear portions being operable to communicate with one another; and
>
> a means to secure the front and the rear portion in position on a wearer's clothing, the securing means being configured when in use to be operable through a thickness of the wearer's clothing between the front and the rear portion.

Br., Claims App. The Specification explains that "[t]he transmitter/receiver may be either a transmitter or a receiver, or may be both a transmitter and a receiver" (Specification 2:1-2).

C. The references and rejection

The Examiner relies on the following references:

Brett	3,141,216	21 July 1964
Lin	4,965,705	23 Oct. 1990
Kakita, et. al. (Kakita)	5,014,079	07 May 1991
Fitch	5,912,653	15 June 1999

Kweon 6,667,771 B1 23 Dec. 2003

Claims 1, 4-8, 13, 14, and 18-22 stand rejected under 35 U.S.C. § 103(a) for obviousness over Fitch in view of Lin.

Claims 2 and 10-12 stand rejected under § 103(a) for obviousness over Fitch in view of Lin and Brett.

Claim 3 stands rejected under § 103(a) for obviousness over Fitch in view of Lin and Kweon.

Claim 23 stands rejected under § 103(a) for obviousness over Fitch in view of Lin and Kakita.

THE ISSUE

The issue is whether Appellants have shown reversible error by the Examiner in maintaining the rejection. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

PRINCIPLES OF LAW

"[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability." *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). A rejection under

35 U.S.C. § 103(a) must be based on the following factual determinations: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) any objective indicia of non-obviousness. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1360 (Fed. Cir. 2006) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966)).

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007)). Discussing the obviousness of claimed combinations of elements of prior art, *KSR* explains:

> When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida* [*v. AG Pro, Inc.*, 425 U.S. 273 (1976)] and *Anderson's-Black Rock*[*, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969)] are illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

KSR, 127 S. Ct. at 1740. If the claimed subject matter "involve[s] more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement," *id.*,

> it will be necessary . . . to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

Id. at 1740-41. "To facilitate review, this analysis should be made explicit." *Id.* at 1741. That is, "there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.* (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

The rationale for combining reference teachings is not limited to the problem the patentee was trying to solve: "any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *In re ICON Health and Fitness Inc.*, 496 F.3d 1374, 1380 (Fed. Cir. 2007) (quoting *KSR*, 127 S. Ct. at 1742).

A rationale for combining or modifying reference teachings can be based on common knowledge or common sense rather coming from the references themselves. "[T]he [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged

claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR*, 127 S. Ct. at 1741.

Furthermore, a reference may be understood by the artisan to be suggesting a solution to a problem that the reference does not discuss. *See KSR*, 127 S. Ct. at 1742 ("The second error of the Court of Appeals lay in its assumption that a person of ordinary skill attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem. . . . Common sense teaches . . . that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. . . . A person of ordinary skill is also a person of ordinary creativity, not an automaton.").

ANALYSIS

A. The rejection based on Fitch and Lin

Fitch's invention is garment that includes a programmable video display unit (Fitch, col. 1, ll. 1-2).

Fitch states that an object of the invention "is to provide a garment with programmable video through a microcontroller which can be easily fitted to or removed from to any existing garment" (*id.*, col. 1, ll. 48-50).

Fitch's Figure 3 is reproduced below.

FIG.3

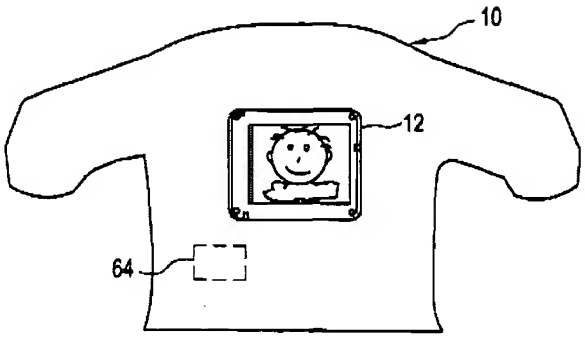


Figure 3 is back view of a jacket in accordance with Fitch's invention (*id.*, col. 2, ll. 51-52).

The jacket 10 has no apparent electronics embodied therein; all electronics are stored within a lining of the jacket with the exception of a liquid crystal display 12, which protrudes from the back center of the jacket (*id.*, col. 2, l. 66 to col. 3, l. 3). The electronics include a programmable microcontroller, discussed *infra*.

Figures 2A and 2B are reproduced below.

FIG.2A

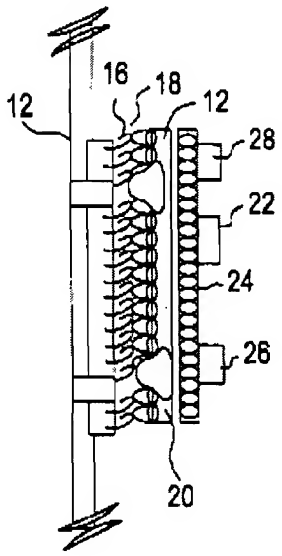
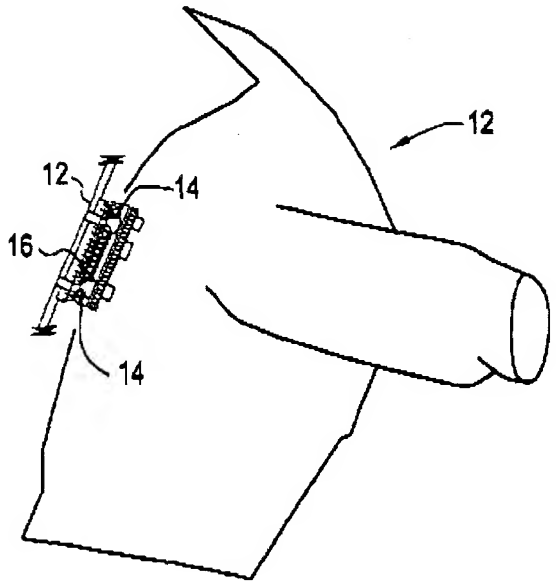


FIG.2B



Figures 2A and 2B are cross-sectional side views (Figure 2A being an exploded partial view) of the jacket, LCD display 12, microcontroller 22, and other components (*id.*, col. 3, ll. 4-5).

Referring to these figures, Fitch explains that

> the color liquid crystal display [12] protrudes from one aperture **14** in the jacket and is fastened by a slide fastener lock configuration **16 18**, or by any other convenient or conventional attachment. The slide lock fastener is sewn into the jacket and clamps the LCD display **12** in place. A second fastener **20** is

> bonded to an inner side of the jacket and clamps a microcontroller **22** and circuit board **24** to the jacket.

Id., col. 3, ll. 5-13. The details of these fasteners and the aperture are unclear from the drawings and the Specification. The above-quoted passage states that numerals 16 and 18 designate a "slide fastener lock." However, that term is used in U.S. Patent 5,081,855[2] to refer to a zipper-type fastener and the fastening means designated by numerals 16 and 18 in Figure 2A instead resembles a Velcro®-type fastener. Also, Fitch provides no details about fastener 20 or aperture 14.

[2] A form PTO-892 listing this patent accompanies this Decision.

Fitch's Figure 6 is reproduced below.

FIG.6

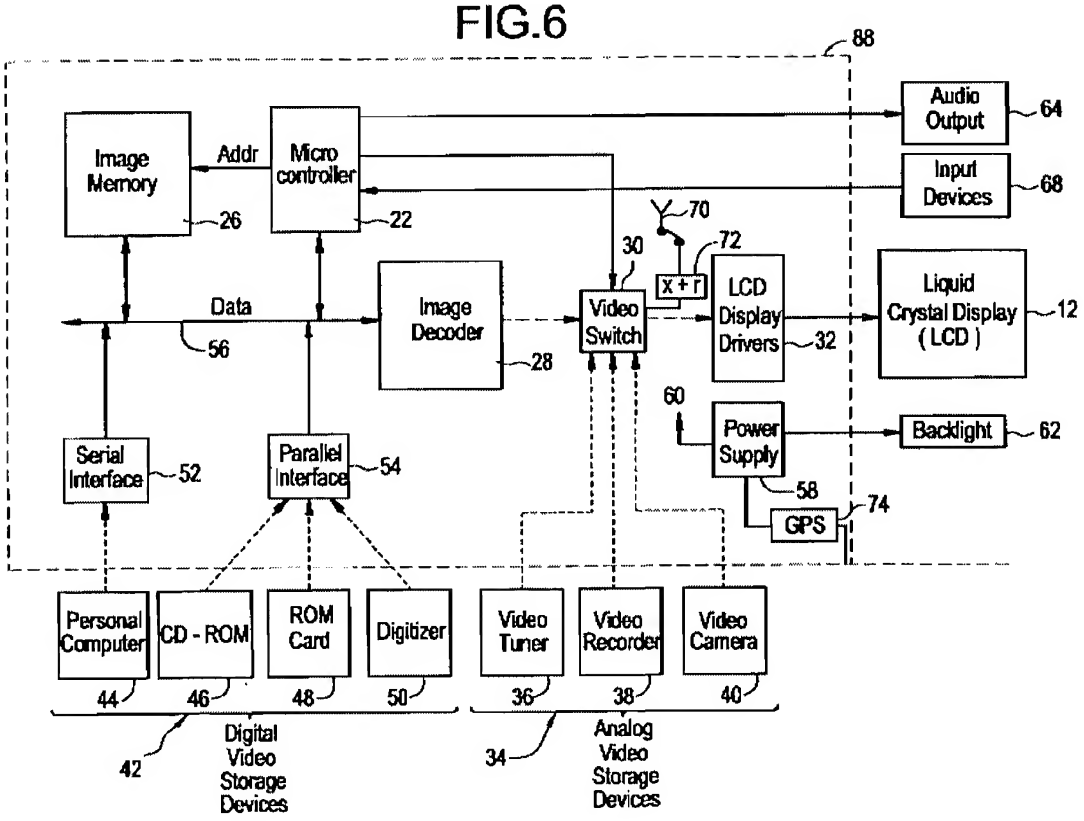


Figure 6 shows a block diagram of the circuitry incorporated in one embodiment of Fitch's invention (*id.*, col. 2, ll. 58-59).

As shown in Figure 6, the printed circuit board (depicted by the dashed-line rectangle 88) includes microcontroller 22, an image memory 26, a video switch 30, and various other components (*id.*, col. 5, ll. 9-11). One of these other components is represented by a block 72 that is labeled "X + r" and connected between video switch 30 and an antenna 70 (*id.*, col. 4, ll. 33-34). This arrangement permits signals from the video switch to be sent on a broadcast frequency allowing other receiving jackets operating on the same

frequency to access and display the broadcaster's images (*id.*, col. 4, ll. 34-37). As a result, we understand the label "X + r" in block 72 to mean a transmitter and a receiver.

The components that appear in Figure 6 below printed circuit board 88 (i.e., analog video storage devices 34 and digital video storage devices 42) are "external to the jacket" (*id.*, col. 3, ll. 45-48), which we understand to mean not carried within or on the outside of the jacket.

The components that appear to the right of printed circuit board 88 are carried within or on the outside of the jacket. These components include LCD display 12, a backlight 63 for the LCD display (*id.*, col. 4, ll. 1-2), and an audio output 64 for feeding an earplug or speakers (66 in Fig. 1) (*id.*, col. 4, ll. 10-16).

> An aspect of the invention is that the images displayed on the liquid crystal display, coming for example from the image memory, are selected by the microcontroller in accordance with environmental conditions as measured by the input devices. For example, the input devices **68** include some or all of the following, the owner's voice print, temperature, humidity, sounds, touch (pressure gauge or excellorometers [*sic*]). Thus the display, would be related to the environment or to the mood or the ambience or setting in which the jacket is worn.

Id., col. 4, ll. 20-29. Input devices 68 can further include operator-operated switches to permit the user to select particular inputs internal or the external digital analog video storage devices (*id.*, col. 4, ll. 30-32).

Fitch also explains that "[t]he external input devices 68 and external storage devices may include a microphone, thermometer, barometer,

miniature video camera, other sensory and external inputs" (*id.*, col. 5, ll. 37-39). The Examiner construes this sentence to mean that a miniature camera is mounted on the outside of the jacket along with LCD display 12. *See* Answer 5 ("to secure the front (electronic devices as LCD, miniature cameras, etc...) and the rear portion (microcontroller 22) in position on a wearer's clothing").

Printed circuit board 88 also supports a GPS system 74 "to provide for security against theft. Information as to the location of the jacket can be used and broadcast to inform law enforcement as well as friends to give information of the position of and the location of the wearer of the jacket." *Id.*, col. 4, ll. 41-47.

Appellants contend that Fitch fails to satisfy two limitations in claim 1. The first argued limitation, which also appears in independent claims 18 and 19, is that "the front portion includes a transmission and reception sections and is adapted to be worn outside a wearer's clothing." The Examiner's statement of the rejection of claims 1, 18, and 19 reads in relevant part as follows:

> [T]he Fitch reference discloses in Figures 2A-B and 6, a wearable electromagnetic (EM) radiation transmitter/receiver (e.g., a garment with any type of electronic devices as LCD, **miniature cameras**, computers, etc... all signals can be set to a **broadcast frequency** allowing other receiving jackets operation on the same frequency to access by transmitter 72, antenna 70, see Col. 4, lines 35-40) comprises a front portion and a rear portion, wherein the front portion includes transmission and reception section and is adapted to be worn outside a wearer's

> clothing (e.g., video tuner 36, video camera 40, audio output devices, input devices, etc... are external to the jacket, see Col. 3, lines 40-50) . . . .

Answer 4-5. Appellants responded by arguing that

> FIG. 6 of *Fitch* shows a circuit board 88 having microcontroller 22 and transmitter/receiver (x + r) 72, where the circuit board 88 does not contain LCD 12. As such, Fitch seemingly discloses that a transmitter/receiver is located inside the garment. For at least this reason, Fitch fails to teach or suggest "wherein the front portion includes transmission and reception sections and is adapted to be worn outside a wearer's clothing," as recited in the claim.

Br. 9, 13, and 17. Although Appellants correctly note that the transmitter/receiver 72 is not part of the front portion of Fitch's device, as is required of the claimed transmission and receptions sections, their assumption that the Examiner is reading the recited transmission and reception sections on transmitter/receiver 72 is incorrect. Instead, the Examiner (a) reads the preambular language "[a] wearable electromagnetic (EM) radiation transmitter/receiver" on transmitter/receiver 72 and antenna 70 and (b) reads the recited "transmission and reception sections" on other components "adapted to be worn outside a wearer's clothing (e.g., video tuner 36, video camera 40, audio output devices, input devices, etc... are external to the jacket, see Col. 3, lines 40-50)." Answer 5. Thus, in discussing the rejection of dependent claim 3, the Examiner found that "the Fitch reference does not explicitly states [*sic*] the transmitter [72] is external to the jacket as in the front portion." (*id.* at 9). Appellants have not addressed the

Examiner's treatment of the "electromagnetic (EM) radiation transmitter/receiver" recited in the preamble as separate from the "transmission and reception sections" recited in the body of the claim, let alone pointed out any error in that treatment.

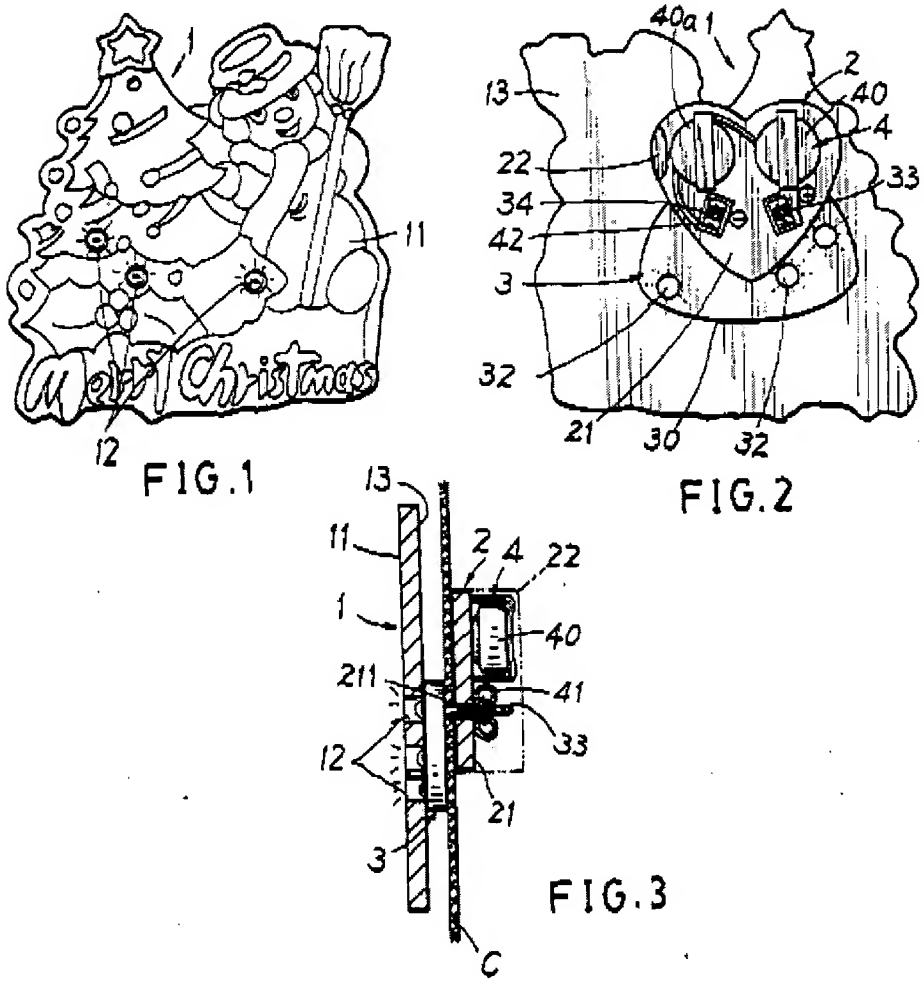
The Examiner's reading of the recited "transmission and reception sections" on the video tuner 36, video camera 40, audio output devices, and input devices is partly correct. As pointed out by Appellants in discussing claim 5 (Br. 11), video tuner 36 and video camera 40 are external to the jacket, i.e., neither within the jacket nor on the jacket. However, Appellants have not addressed the Examiner's reading of the recited "transmission" section on audio output 64, which transmits audio signals through a jack to an earphone or speakers (*id.*, col. 4, ll. 10-16). Nor have Appellants addressed the Examiner's reading of the recited "reception" section on an external input device 68 in they form of a miniature camera, which the Examiner found (Answer 5) would be carried on the outside of the jacket. Furthermore, although Appellants have not argued that it is required by the claim language, the light detected by this miniature camera is electromagnetic information, as is the image information displayed on (i.e., transmitted by) LCD display 12.

For the foregoing reasons, Appellants have not demonstrated that Fitch fails to satisfy the limitation of claims 1, 18, and 19 that "the front portion includes a transmission and reception sections and is adapted to be worn outside a wearer's clothing."

The second limitation of claim 1 argued by Appellants is "the securing means being configured when in use to be operable through a thickness of the wearer's clothing between the front and the rear portion" (Br. 7). The Examiner found that "the Fitch reference does not explicitly show 'a means to secure' as using an electrically conducting connection pin configured when in use to be operable through a thickness of the wearer's clothing between the front and the rear portion instead of fastener lock" (Answer 5), which we understand to mean that Fitch does not disclose, as an alternative to Fitch's slide fastener lock, "a means to secure" (e.g., an electrically conducting connection pin) that is configured when in use to be operable through a thickness of the wearer's clothing between the front and the rear portion.

For such a teaching, the Examiner relies on Lin, which discloses an electronic badge having double-effect (i.e., dual purpose) pins (Lin, col. 1, ll. 1-2).

Lin's Figures 1-3 are reproduced below.



Figures 1-3 are front, rear, and side elevation views of Lin's electronic badge (*id.*, col. 1, ll. 44-46).

The badge includes (a) a front plate 1 having an affixed illuminating means 3 and (b) a rear button 2 that contains a power source 4 (*id.*, col. 1, ll. 58-68). Front plate 1 has a plurality of illuminating holes 12 for illumination by illuminators 32 in illuminating means 3 (*id.*, col. 2, ll. 28-33). Electrically

conductive pins 33 and 34 extend from the rear surface of illuminating means 3 (*id.*, col. 2, ll. 34, 37) for receipt by unnumbered openings in rear button 2 and engagement by electrically conductive clips 41 and 42 that are connected to opposite poles of the battery in power source 4 (*id.*, col. 2, ll. 5-46).

Pins 33 and 34, in addition to connecting the power source to the illuminating means, firmly clamp the badge to the wearer's clothes (*id.*, col. 2, ll. 47-53). The Examiner concluded that

> [t]he Lin reference is evidence that one of ordinary skill in the art at the time to see more advantages the wearable electronic device using an electrically conducting connection pin to secure the front and the rear portions so that wearer can easily attach or detach both front and rear portions of device from cloth. For that reason, it would have been obvious to one of ordinary skill in the art to modify the wearable device of Fitch ('653) by providing an electrically conducting connection pin to secure the front and the rear portions as taught by Lin ('705).

Answer 5-6. We understand the Examiner's position to be that it would have been obvious to use a plurality of pins to make the necessary electrical connections between Fitch's' LCD display 12 and the printed circuit board.

Appellants argue that

> [i]n considering the combination of references, the fastening mechanism taught by *Lin* seems to teach against the type of fastening mechanism that *Fitch* suggests should be used for its liquid crystal display. When *Fitch* is so obviously concerned with securing the liquid crystal display to a garment to protect the device and to prevent theft (e.g., sewing and bonding a lock

> fastener to the garment), it is not understood how a fastening mechanism taught by *Lin* is consistent with those objectives.

Br. 8. This argument is unconvincing because Fitch does not indicate that the programmable video display unit and the garment are connected in a way that is intended to prevent their separation by a thief. While it is true that slide fastener lock 16, 18 is sewn into the jacket for clamping LCD display 12 in place and that fastener 20 is bonded to the inner side of the jacket for clamping the microcontroller and circuit board in place (Fitch, col. 3, ll. 5-13), there is no indication that these fasteners cannot be unfastened in order to separate the LCD display device and printed circuit board from the jacket. To the contrary, one of the objects of Fitch's invention, as noted above, "is to provide a garment with programmable video through a microcontroller which can be easily fitted to or removed from to any existing garment" (*id.*, col. 1, ll. 48-50). *See also* Fitch claim 12 ("The system according to claim **8**, wherein said at least one video image display and said switch are removably mounted on said garment."). Furthermore, Fitch's suggestion that fasteners other than slide fasteners can be used (*id.*, col. 3, ll. 8-9; col. 5, ll. 53-54) is not restricted to permanent fasteners.

In view of the above, we are also unpersuaded by Appellants' argument that Fitch's disclosure of making the GPS system 74 part of the circuitry 88 for the liquid crystal display suggests that "the liquid crystal display in Fitch is seemingly intended to be fastened securely to a jacket,

such that theft of the jacket itself is more likely than then theft of the liquid crystal display by itself" (Br. 10).

Because Appellants have not shown reversible error by the Examiner in maintaining the rejection of independent claims 1, 18, and 19 for obviousness over Fitch in view of Lin, we are affirming the rejection of those claims. The rejection based on Fitch in view of Lin is also affirmed with respect to unargued dependent claims 4, 6-8, 13, 14, and 20-22.

Appellants do separately argue claim 5, which also is rejected for obviousness over Fitch in view of Lin. Claim 5 reads: "A wearable transmitter/receiver as claimed in claim 1, in which the front portion comprises an image capture means." In rejecting this claim, the Examiner stated that "the front portion comprises an image capture means (miniature video camera, See Col. 3, lines 40-42 and Col. 5, lines 35-46)." Answer 6. The Examiner's reliance on column 3, lines 40-42, is misplaced. Appellants correctly note that video camera 40, described therein is "external to the jacket" (Br. 11), i.e., not within or on the jacket. However, Appellants have not pointed out any error in the Examiner's alternative reliance on the miniature camera described at column 5, lines 35-46 (more particularly in lines 35-40).

The rejection of claim 5 is therefore affirmed.

B. The rejection based on Fitch in view of Lin and Kweon

Dependent claim 3, which stands rejected for obviousness over Fitch in view of Lin and Kweon, reads: "A wearable transmitter/receiver as claimed in claim 1, in which the front portion includes a radio transmitter." As noted above, in the rejection of claim 1 the Examiner read the recited "transmitter" on audio output 64 rather than on transmitter/receiver 72 or antenna 70.

For a teaching of locating a transmitter on the outside of a user's clothing, the Examiner relies on Kweon, which discloses a wireless image transmission system having a concealed camera (Kweon, col. 1, ll. 7-14).

Kweon's portable camera has the appearance of a ball-point pen (*id.*, col. 1, ll. 41-43).

Figure 2 is reproduced below.

FIG. 2

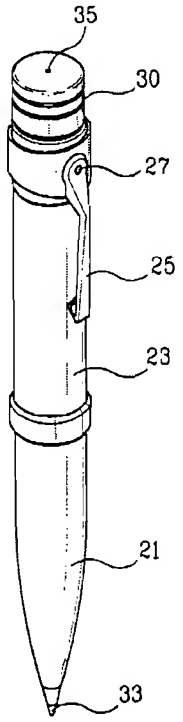


Figure 2 is perspective view of the portable camera.

The portable camera has a lower portion 21 and an upper portion 23, to which a clip 25 is mounted (*id.*, col. 3, ll. 46-48). A connection portion of the clip 25 and the camera body has a through-hole 27 to transmit light to an image sensor contained within the body (*id.*, col. 2, ll. 48-50).

Figure 4 is reproduced below.

FIG. 4

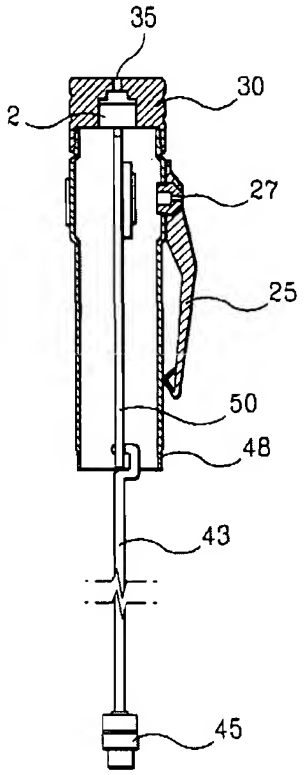


Figure 4 is a cross-sectioned view of the upper portion of the portable camera (id., col. 3, ll. 14-15).

This view shows a cable 43 connecting camera circuit 50 to a jack 45 for enabling the portable camera to be connected to a wireless transmission device (*id.*, col. 4, ll. 2-5).

Figure 5 is reproduced below.

FIG. 5

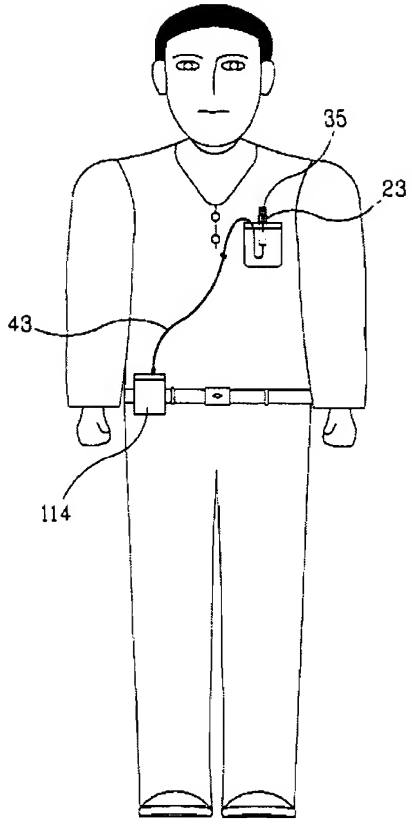


Figure 5 is a schematic view showing a user wearing a portable camera according to an embodiment of Kweon's invention (*id.*, col. 4, ll. 6-8).

Figure 5 shows the upper portion 23 of the portable camera in a user's shirt pocket (*id.*, col. 4, ll. 8-10). Cable 43 transmits the audio and video signals from the portable camera to a wireless transmission device (labeled

114 in Figure 5 and identified as 14 in the Specification) that is shown carried on the user's belt (*id.*, col. 4, ll. 10-12).

The Examiner characterized Kweon as "evidence that one of ordinary skill in the art at the time to see more advantages [in] the transmitter and antenna adapted to be worn outside the wearer's clothing so that the strong and clear signals can be transmitted directly to the remote without [being] obstructed by the wearer's clothing" (Answer 15) and concluded that "[f]or that reason, it would have been obvious to one of ordinary skill in the art to modify the wearable device of Fitch ('653) by providing the transmitter is [*sic*] external to the jacket as in the front portion as taught by Kweon ('771). *Id.* We understand the Examiner's position to be that it would have been obvious to relocate antenna 70 and transmitter 72 from the printed circuit board 88 in Fitch (as modified in view of Lin to use connection pins) to Fitch's LCD display 12, which is on the outside of the jacket, in order to improve the quality of the transmitted and received RF signals. We note that the claim language in question would be satisfied by relocating only antenna 70 in this manner.

Appellants have not pointed out any error in the Examiner's finding that one skilled in the art would have understood from Kweon that signals received by a remote receiver from an antenna worn on the outside of a user's clothing will be stronger and clearer than signals received by the remote receiver from an antenna worn under the user's clothing. Instead, Appellants argue that Kweon's ball-point pen structure has lower and upper

sections 21 and 23 rather than front and rear sections and thus does lacks front and rear sections separated by clothing, as required by parent claim 1 (Br. 20). This argument is unpersuasive because the Examiner relies on Fitch and Lin, not Kweon, for those limitations. For the same reason, we are unpersuaded by Appellants' argument that "Kweon fails to disclose a 'securing means being configured when in use to be operable through a thickness of the wearer's clothing between the front and rear portion,' under the Examiner's construct" (Reply Br. 3).

For the foregoing reasons, we affirm the rejection of claim 3 for obviousness over Fitch in view of Lin and Kweon.

C. The remaining rejections

Appellants do not separately argue the limitations of claims 2 and 10-12, which stand rejected over Fitch in view of Lin and Brett, or the limitations of claim 23, which stand rejected over Fitch in view of Lin and Kakita. The rejections of those claims are therefore affirmed.

DECISION

The Examiner's decision that claims 1-8, 10-14, and 18-23 are unpatentable under 35 U.S.C. § 103(a) for obviousness over the prior art is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. §§ 41.50(f) and 41.52(b).

AFFIRMED

MAT

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Enclosure: Form PTO-892 listing U.S. Patent 5,081,855

Notice of References Cited	Application/Control No. 10/844,057	Applicant(s)/Patent Under Reexamination of a Patent Appeal No. 2008-2356	
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U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
X	A	US-5/081,855	01-1992	Terada, et al.	70/68
	B	US-			
	C	US-			
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